

SABA UNIVERSITY SCHOOL OF MEDICINE

SITE INSPECTION TEAM'S FINAL REPORT

Introduction

A survey of the Saba University School of Medicine on Saba, Netherlands Antilles was conducted on May 20-21, 2004 by a team representing the Division of Licensing of the Medical Board of California. The purpose of the site visit was to determine whether the school meets the requirements of Business and Professions Code Sections 2089 and 2089.5 and Title 16 Cal. Code Regs sections 1314.1. Following this survey, three members of the team visited four teaching hospitals offering clerkships to Saba (and St. Mathew's) students on May 24-25, 2004 in Chicago, Illinois.

The team members were James Bolton, PhD, Joyce Hadnot, Deputy Director of the MBC, Anita Scuri, Legal Counsel and Martin A. Pops, M.D., licensing consultant.

History and Setting of the School

In 1986 the government of the Netherlands Antilles proposed to a group of American educators that a medical school be established on the small island of Saba, N.A. It was to be relatively small, of high quality and established for the dual purpose of benefiting the economy of the island (of only 1500 population) and attracting N.A. citizens to medical careers in the N.A.

A committee of Dutch citizens from Curacao, the seat of the N.A. government, approved the preliminary plans and the school was founded as a nonprofit foundation under Dutch law (however, is now subject to profit taxes should the school make a profit). Thus, a unique mission for the school as compared to all other Caribbean medical schools was established because it was initiated by local government rather than by private entrepreneurs.

As the school has matured, the island has benefited by a 40% increase in gross domestic product (GDP), with the infusion of over 300 students, faculty, staff and administrators.

The first class began its studies in September 1993. The school admits three new classes per year and conducts basic science and pre-clinical teaching over five semesters during the first two years. Students who have successfully completed the first two years curriculum then take clerkships in various hospital's (6th through 10th semester) in several U.S. states which have entered into a contractual agreement with the school. The team visited three such hospitals in Chicago following the island visit.

Governance and Administration

The school's U.S. office is located in Gardner, Mass. It houses the President, David Fredrick, Ph.D. , the Executive Dean, Arthur Maron, M.D. and the Associate Dean for Clinical Medicine, Patricia Hough, M.D., Ph.D. among others. These administrators visit the island frequently but work mainly out of the U.S. office. An Associate Dean for Basic Sciences, Dr. Vincent Knight assisted by two assistant deans is responsible for the academic administration on the campus at SABA and is in full time residence.

The Board of Trustees is the governing body of the school. It is independent and includes one local island representative. The six trustees meet each semester for decisions on funding for major expenditures such as new building construction.

All academic matters such as student progression, counseling, examination policy, dismissal etc. are decided on campus. Admissions are coordinated in the Gardner, Mass. Office.

An average of 50 new students are admitted each semester, a new class each January, May and September giving a current enrollment of 245 students in years I and II. There are 260 students enrolled in clerkships in various hospitals in the U.S. The entire enrollment is made up of 66% U.S. citizens, 26% Canadian, 4% Caribbean, 2% Asian, 2% African.

Tuition is \$5,950 for each semester, first through fifth. In years three and four (6th through 10th semesters) the tuition is \$6,950 per semester. Essentially the school's entire income is derived from student tuition and fees and amounted to \$7,924,388 in 2003, and is projected at \$8,320,000 in 2004. The land is valued at \$4 million U.S. dollars. There is a small reserve fund (approximately \$425,000 last year) and an escrow fund for tuition. The school receives no funds from the NA government but does benefit from government improvements to infrastructure.

Facilities and Academic Environment

The Saba campus is composed of three two-story buildings occupying approximately 43,000 sq. ft. This includes a building of approximately 14,500 sq. ft. that houses a well equipped and volumed library of 1200 sq. ft., a building with approximately 26,000 sq. ft for administration, classrooms and laboratories; a computer testing facility of 2000 sq. ft with 50 monitors and a maximum capacity of 70 monitors; a student lounge and fitness room and various ancillary space. There is also a privately owned dormitory of approximately 12,000-sq. ft. for first-year students.

There are 27 full time faculty. Approximately 1/3 of these are engaged in research projects on a total budget of \$120,000 provided by the school. A small amount of research funding is provided by the Pan-American Health Organization.

The overall academic environment seems quite rich. There are ample provisions for internet scientific literature searches, faculty led exercises in evidence-based medicine and opportunities for students to become involved in research under the sponsorship of a faculty member. The numbers of students currently engaged in research is fairly small because of the time consuming and tightly constructed curriculum. Not more than 10 – 15 students are engaged in research at the present time. Most of these are involved with the hyperbaric deep-sea diving research facility on the island.

Library

The library has a staff of seven. It has 18 online computer terminals that provide access to Ovid and MD Consult and has a seating capacity of 70. The library has a budget of \$240,000. There are 3,400 items in the collection. The online subscriptions add over 300 titles. The library has a special collection related to hyperbaric medicine. There is also a voluntary Journal Club.

Faculty

There are 27 full-time faculty members on the SABA campus. They have a wide variety of backgrounds with Ph.D.'s, M.D.'s, M.D.-Ph.D.'s obtained in several countries including the U.S., India, Russia, The Ukraine, Germany, Spain, Hungary, the Caribbean, Bulgaria, U.K., Iran, Canada and China. This virtual "United Nations" of instructors, assistants, associates and full professors is remarkably well integrated, cohesive and enthusiastic. Relations between administration and teaching faculty are cordial and the faculty feels well supported by the administration of the school.

Most faculty have been associated with the school only for two years or less. Only 2 faculty members have been associated with the school for 4 to 5 years. Faculty believe that the faculty retention rate has improved due to (1) a stable core of very competent faculty; (2) improved teaching facilities; (3) responsiveness of the administrators; and (4) a better quality of student.

There is no peer review of faculty. However, the school seeks and obtains an appraisal of its students' preparation from the clinical directors, from students and preceptors.

The team had the opportunity to meet with the entire faculty and visited a number of lectures and laboratories in session. The teaching methods follow the classical format with opportunities for small group interaction during various laboratory exercises. Lectures are generated by faculty and are placed on computer chips before each semester so that students with computers can purchase the power point presentation ahead of time and follow during lectures as well as preview and review at home. We estimated about 75-80% of students using lap top computers in various classes.

The faculty senate has been in existence for two years. It meets twice each semester for discussion of tenure, recruitment and retention, evaluation and compensation. When asked by the team about changes or improvements they would like to see, the faculty members who responded mentioned a desire for more library components, more computers, improved continuing education opportunities and higher salaries. Most, however, stated they were quite satisfied and enjoyed considerable academic freedom.

Research

The school is applying for a government grant (maximum of \$10,000) to evaluate medical anthropology on the island—e.g. what plants long-time Saba residents use for medicinal purposes. The school receives minimal external funding for research. The school plans to offer \$1,000 per semester for student hyperbaric research projects once the second hyperbaric chamber arrives. It also allocates internal funding of \$30,000 per year for research.

It is clear that the faculty come mainly to teach. A few have been engaged in research activities but resources, space and time are at a premium on the small island. A notable exception is the program in Hyperbaric Medicine which was, in 1994, approved by the school for a Master of Science (M.Sc.) degree as the only graduate degree the school offers at the present time. Faculty in physiology actively engages in research and teaching of hyperbaric medicine.

A new research program funded by the government of El Salvador at \$1.5 million is proposed to conduct clinical protocols in the treatment of breast cancer and lymphoma.

Faculty members cite the disadvantage of their jobs as the remoteness of the school, which limits social interaction, as well as lack of close communication with academic institutions.

Curriculum

The curriculum for the first five semesters (years I & II) is conducted on Saba and is completed in 20 months. The clinical medicine program is 72 weeks of clerkships in required and elective rotations at a variety of hospitals, mostly in the U.S. A favorable student-professor ratio of 6:1 provides opportunity for adequate student-teacher interaction. The courses parallel the traditional courses offered in medical schools in the U.S. Students begin with first semester courses in Gross and Developmental Anatomy, Histology and Cell Biology and an introduction to “Infomedicine” which teaches Internet skills, use of library and self-study techniques.

The second semester comprises four courses: Biochemistry, Physiology, Medical Psychology and Medical and Legal Ethics. Third semester courses include Microbiology and Immunology, Neuroscience, Genetics and Epidemiology.

Year II starts with Pharmacology, Pathology and Physical Diagnosis. The last or 5th semester on Saba includes lectures and labs in Introduction to Clinical Medicine, Clinical Pathology and 145 hours for USMLE Review. Medical ethics are covered in a course devoted to that topic, but are also included in other courses where appropriate.

The ICM course provides for rotations at the small hospital on Saba. Students see patients under supervision in both in-patient and out-patient settings and in nursing home settings.

All students are required to take and pass USMLE Step I and Step II. For year 2002 takers (#99) the passing rate was 95% and 2003 was 94%. Step II passing rates were 93% and 90% for those years respectively. Saba students are not permitted to begin year III clinical rotations until they pass Step I of the USMLE.

All courses require regular examinations. Use of USMLE “shelf” exams is extensive. All exams are taken in the computer center. It appears that the Saba students do well on the USMLE primarily because they are rigorously and frequently tested in their preclinical courses and in the identical format of USMLE.

A curriculum committee of the faculty meets twice each semester and appears to play a major role in curricular change recommendations which are passed through a Dean’s Advisory Council to the President’s office. The Curriculum Committee members state that they follow U.S. medical school curricula. Major curricular changes are not in the offing and any future changes will come about only as a result of changes in the format of U.S. medical school curricula. The most frequently talked about change at present is more course integration. Thus far, the only recent integration has been the combining of anatomy and embryology.

Students

In the past year the school received 1200 inquiries regarding admission. 388 applications were completed, 196 were rejected through initial screening. Up to fifty students are selected each semester with the majority having a pre-med grade point average of 3.0 to 3.5. The average age of entering students is 27 to 28 years. Applicants are evaluated on a number of criteria, including personality, spontaneity, personal issues, and support systems. Some of the criteria specifically attempt to assess an applicant’s chances of success on a small remote island. The school conducts telephonic interviews with applicants but also gives applicants the opportunity for an in-person interview if an applicant so chooses.

The survey team had the opportunity to meet with a good sample of 1st and 2nd year students and was impressed with the overall maturity and enthusiasm displayed. The majority had pursued other careers such as nursing, physical therapy, pharmacy, chemistry, engineering and even sales and marketing. The majority we spoke with had applied initially to Saba or other offshore schools because they realistically felt that because of age and “different” backgrounds they would not be competitive for U.S. schools. All, however, wish to take their

clinical clerkships in the U.S. and many are interested in residencies and eventual practice in California.

Counseling for students is readily available and well organized. Each student is assigned a faculty advisor. Two faculty psychologists are very active in providing personal counseling and a variety of seminars about problems that medical students and physicians frequently encounter. The Dean for Student Affairs is experienced and well liked by the students who for the most part are very disciplined about their studies. The students complain only about the isolation of the small island and lack of social interaction as well as entertainment except among themselves. At the same time they state that the academic load is so heavy that they must expend most of their time and effort on their studies. Despite this, attrition is quite low (less than 4% per year). Dismissal is a result of failing a given course twice or failing another course at the same time. The most frequent reason for dismissal is multiple failures of Step I of the USMLE (three times). Dismissal follows a period of academic probation and is at the discretion of the Dean following recommendation by a faculty promotion committee. The team was advised that administration is very receptive to faculty recommendations regarding student retention and promotion.

Additional counseling becomes available when the student begins selecting clinical clerkship rotations in the U.S. This appears to be both complete and timely. Efforts are made to provide the best match for each student with respect to geography and particular interests and abilities.

Financial aid is available through the usual loan programs. At the time of the survey a total of 234 students of 505 total were recipients of financial aid.

SITE VISITS TO CHICAGO AREA HOSPITALS WHICH OFFER CLINICAL CLERKSHIPS TO SABA STUDENTS

Introduction

Three members of the Saba team (Ms. Hadnot, Ms. Scuri and Dr. Pops) proceeded to Chicago, Illinois on May 23 and spent half-day visits May 24-25 at each of four hospitals which have contracted for clinical clerkships both required and elective for Saba students. Brief descriptions and evaluations are provided for the three hospitals utilized by Saba.

St. Anthony's, Michael Reese and Jackson Park

These three hospitals are within the city limits of Chicago. All offer various clerkships for Saba as well as other Caribbean medical schools. The team conducted interviews with faculty

preceptors, department chairs and Saba students. They can be described as a group because of a large number of similarities.

St. Anthony's is not a major affiliate teaching hospital but is accredited for obstetrics and gynecology. It has 8 residencies in internal medicine and 5 in obstetrics and gynecology. The program currently has about 30 students from Caribbean medical schools and 6 from Chicago Medical School. Saba has had a written contract of affiliation with St. Anthony's since 1995. The team interviewed 4 students from Saba.

Michael Reese is a major affiliate teaching hospital for the University of Illinois/Chicago School of Medicine. Students come from three Caribbean schools and second year students and residents come from the University of Illinois. Starting in Fall of 2003, all students are required to have passed Step 1 of the USMLE before starting any core rotation. Saba has a written contract of affiliation with Michael Reese. The team interviewed 2 students from Saba.

Jackson Park has an ACGME-accredited family practice residency. This hospital has a large contingent of students: 10 students each from Saba and St. Matthew's, 48 students from Ross, 2 to 5 students from Chicago Medical School, and 5 to 8 students from Grace University. The hospital has been teaching Caribbean students since 1988. It has 15 residents. All students are required to have passed Step 1 of the USMLE before starting any core rotation. Saba has a written contract of affiliation with Jackson Park. None of the 6 students interviewed at Jackson Park was from Saba University.

The leadership and the various course chairs at the three Chicago hospitals were generally full time hospital based physicians, mostly in primary care specialties. Saba uses Michael Reese for obstetrics only but places students in internal medicine, family practice, pediatrics and (at Jackson Park) psychiatry at the other two hospitals. Both required clerkships and electives are offered in a variety of medical subspecialties such as cardiology and gastroenterology.

An adequate balance of didactic learning via seminars and conferences and practical clinical experiences with students responsible for in-patient and out-patient work-ups presentations, formulations and follow-ups constitutes the curriculum at each hospital. Saba students at these hospitals mix with some students from two Chicago area U.S. schools, Chicago Medical and U. of Illinois. Interestingly more than one faculty preceptor in comparing performances of Saba and U.S. school students said they preferred the Caribbean students because they try harder, have less of a "what can you do for me" attitude and though they might have a less impressive basic science data base are easier to teach and seem to accomplish more on their rotations. Exams are conducted by the school on a regular basis and as at Saba rely on "shelf" exams at the USMLE. Evaluations as well as the exams are sent to the University and student progress is monitored carefully in the Gardner office.

Coordination of the clinical program is under the direction of Patricia Hough, M.D., Ph.D. who is Associate Dean for Clinical Medicine. Saba looks at clinical rotation sites by region. Students complete an online evaluation after every rotation. The school evaluates sites based

on complaints, the student evaluations and logs and visits by Dr. Hough. Saba tightly controls the student's third year rotations and somewhat controls the fourth year as well. The school stays in touch with its students during their clinical years and counsels students after each rotation. The school provides adequate resources to its students during the clinical years.

The team wishes to express our appreciation and thanks for the expert guidance, help and transportation she arranged on Saba and in Chicago. Thank you also to the cooperation received from David Fredrick, Ph.D., President, Executive Dean Arthur Maron, M.D., M.P.A. and especially Vincent Knight, Ph.D. the Associate Dean for Basic Sciences who was our host on Saba.

Admittedly, the survey team was only able to get a "snapshot" look at Saba's clinical programs. However, if these clerkships are typical then Saba students are receiving very good to excellent experience in their clinical years.

Summary and Recommendations

The survey team was unanimous in agreeing that Saba University School of Medicine was achieving its goals of 1) preparing medical students for the study and practice of medicine consistent with its motto "Education for Life"; 2) service to the populations of the island as well as the greater Netherlands Antilles and 3) promotion of research through epidemiological and scientific investigative projects that benefit the regional population.

Strengths of the medical school include:

- a dedicated and accomplished multinational faculty;
- a functional and up to date facility;
- a highly motivated student body with a rich diversity of career backgrounds and life experiences;
- an excellent library and library staff with more than adequate computer assisted literature search and an appropriate number and variety of journals and texts.
- assigning a faculty advisor for each student, who stays as advisor throughout the student's first 5 semester;
- extensive faculty availability to students.

Evaluation of student performance and of faculty teaching performance is excellent and provides fine-tuning of the curriculum as well as the methods of instruction and testing.

Few, if any, weaknesses were detected. The major stressor appears to be the relative isolation and smallness of the island and its population, which limits not just social interaction but also interaction with other academic institutions and with others in medicine. The isolation is expiated by opportunities for frequent breaks for vacation off-island, of which most all take

advantage. In addition, more research journals online and a faster Internet connection would help to reduce the sense of isolation.

The survey team is unanimous in recommending that the State of California, Medical Board of California Division of Licensing recognize Saba University School of Medicine as a medical school that meets the requirements of Title 16 Cal. Code Regs and offers an equivalent course of instruction to that required by Sections 2089 and 2089.5 of the Business and Professions Code.

The survey team further recommends that the Division's recognition extend only to those students who matriculate at Saba on or after January 1, 2002. It was abundantly clear to the survey team that at the time of the site visit, the school's educational structure had been stable for approximately the last two years. Saba University School of Medicine had undergone considerable change in faculty and educational structure prior to 2002 and the survey team therefore cannot make any determination or recommendation regarding equivalency for that past time period.

The team recognizes that its second recommendation is a departure from past Division practices. However, the survey team feels strongly that it has no factual basis for recommending a different cut-off date for accepting applicants who received their M.D. degree from Saba.